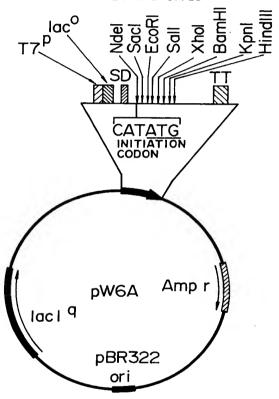


F | G. |
DETAILED DIAGRAM OF EXPRESSION VECTOR pW6A
MULTICLONING SITES



T7^p : T7 promoter

lac 0 : lac operater

SD : SHINE-DALGARNO SEQUENCE

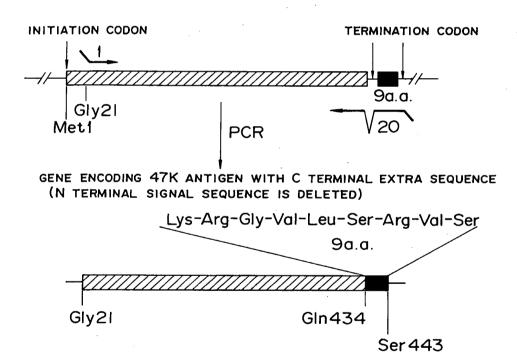
TT : T7 TRANSCRIPTIONAL TERMINATOR

Amp r : \$\beta\$ LACTAMASE | Idc REPRESSOR

pBR322 : REPLICATION ORIGIN

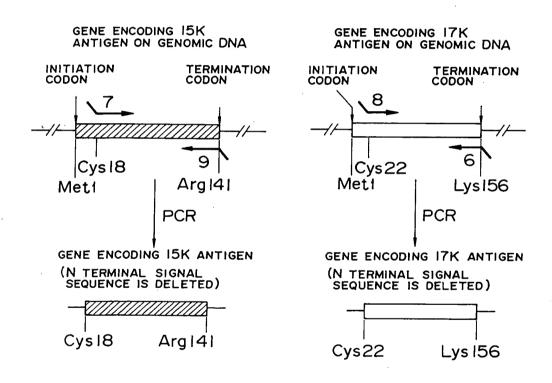
F I G. 2 PREPARATION OF GENE ENCODING 47K ANTIGEN

GENE ENCODING 47K ANTIGEN ON GENOMIC DNA



PRIMER

FIG. 3
PREPARATION OF GENE ENCODING
15K ANTIGEN AND 17K ANTIGEN



T : PRIMER

F1G. 4 DETAILED DIAGRAM OF EXPRESSION VECTOR FOR TWO-ANTIGEN FUSED ANTIGEN INITIATION CODON pW6A-15-17 **TERMINATION** CODON PO SD Ndel BamHI pW6A-15-47 INITIATION TERMINATION CODON POSD. 15ĸ Sall Ndel BamHI pW6A-47-17
INITIATION
CODON TERMINATION CODON 7к Ndel Sall **BamHI** pW6A-47-15 INITIATION CODON TERMINATION CODON 15_K Sall TERMINATION CODON Ndel BamHl INITIATION CODON pW6A-17-15 POSD 17ĸ Ndel Xhol Sall BamHi pW6A-17-47 INITIATION CODON TERMINATION CODON †Ndel _{Xhol}"Sall BamHI Amp r

ori

FIG. 5

DETAILED DIAGRAM OF EXPRESSION VECTOR FOR
THREE-ANTIGEN FUSED ANTIGEN

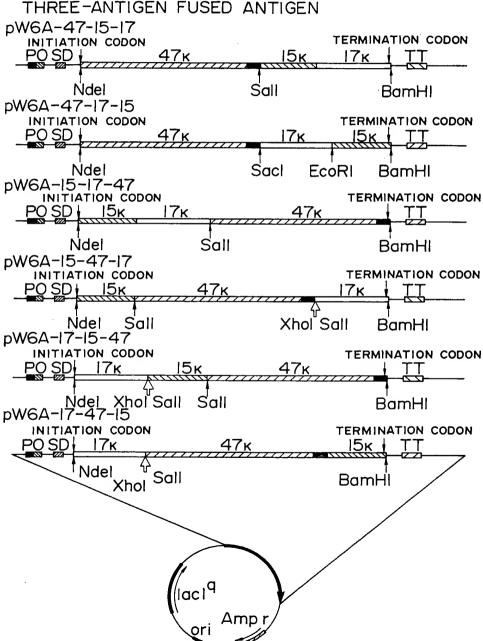
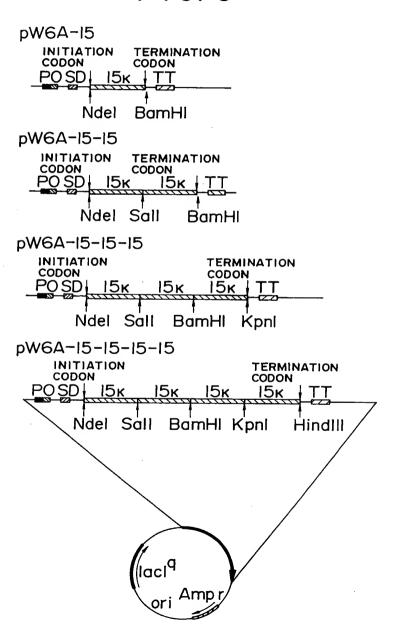
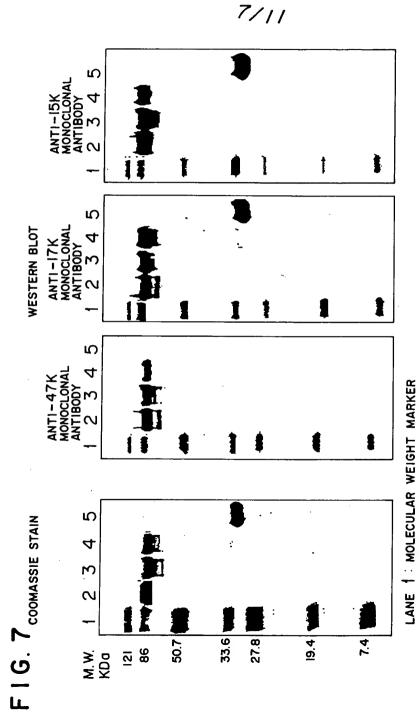




FIG. 6





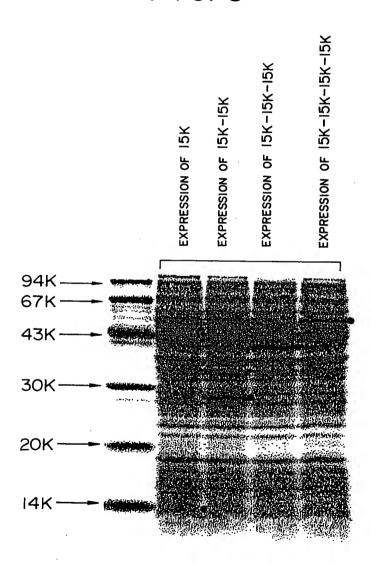
3:47-15-17 4:15-17-47 2: 47-17-15

5: 15-17



8///

FIG. 8





F I G. 9

F 15K	F 15K-15K	EXPRESSION OF 15K-15K-15K	EXPRESSION OF 15K-15K-15K-15K
0	Ō	ō	ō
EXPRESSION OF 15K	EXPRESSION OF 15K-15K	EXPRESSION	EXPRESSION

123K -

85K -50K -

33K -

29K

19K

8K -

